THE OCCURRENCE OF AEDES (OCHLEROTATUS) PULLATUS (COQUILLETT), IN CALIFORNIA[1]

(Diptera: Culicidae)

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The collection of *Aedes* (*Ochlerotatus*) *pullatus* (Coquillett), 1904 in Tuolumne Meadows, Yosemite National Park, Tuolumne County, on June 27, 1949, brings the total number of recognized species and subspecies of the mosquito fauna in California to 39[2] (Reeves, 1941; Bohart, 1948). *A. pullatus*, a dark-legged snow mosquito has a wide distribution, having been reported from the Alps of Europe (Dyar, 1922), Alaska, and the Yukon south along the Rocky Mountains to Colorado (Matheson, 1929; 1944), and in Montana (Mail, 1934), Utah (Rees, 1934; 1942), Idaho (Harmston and Rees, 1946), Oregon (Gjullin, personal communication), and Washington (Boddy, 1948).

Fourth instar larvae and pupae of *A. pullatus* were collected with third instar larvae of *Culiseta incidens* (Thomson) and *Culiseta* sp. from two small sunlit depressions which were void of vegetation in temporary water courses formed by melting snow. At this elevation, 8600 feet, the snow had melted by the 19th of June, and at the time of the collection only the depressions contained water. From 66 larvae collected, 6 males and 24 females were reared in correlated series and an additional 32 males and 22 females were reared from pupae. Females of *A. pullatus* were taken in biting collections in association with *Aedes ventrovittus* Dyar, *A. hexodontus* Dyar, *A. fitchii* (Felt and Young), *A. communis* (DeGeer), and *Culiseta incidens* from the Tuolumne Meadows Public Campground area.

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[1]From Bureau of Vector Control, California State Department of Public Health, and the Communicable Disease Center, Public Health Service, Federal Security Agency, Atlanta, Ga.

[2]Excludes *Anopheles pseudopunctipennis franciscanus* var. *boydi* (Vargas) (Reeves, 1941) and *Anopheles punctipennis* var. *perplexens* Ludlow collected at Hamilton Field, Marin County, July 28, 1944 (H. H. Dodge), determined by Dr. George H. Bradley, reference letter of November 25, 1944, unpublished record on file in the Bureau of Vector Control.

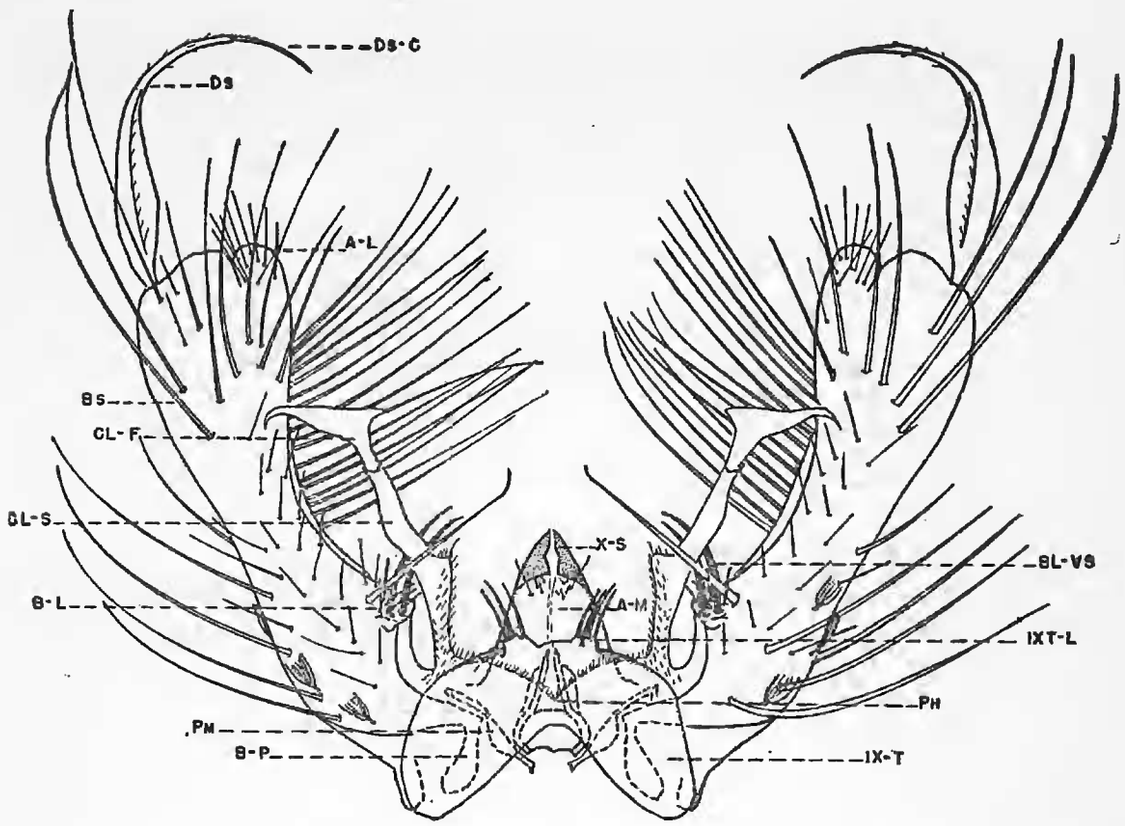

Figure 1. Diagram of the structures of the male terminalia of *Aedes pullatus* (Coquillett), 1904

Legend:*

A-L	apical lobe
A-M	anal membrane
B-L	basal lobe
BL-VS	ventral spines of basal lobe
B-P	basal plate
Bs	basistyle
CL-F	filament of claspette
CL-S	stem of claspette
Ds	dististyle
Ds-C	claw of dististyle
Ix-T	ninth tergite
IXT-L	lobe of ninth tergite
Ph	phallosome
Pm	paramere
X-S	tenth sternite

*Terminology follows that employed by Carpenter, Middlekauff and Chamberlain (1946, p. 34).

Specimens of *A. pullatus* have been deposited in the collection of the Academy of Sciences, San Francisco, California; the U. S. National Museum; and the Communicable Disease Center, Public Health Service, Atlanta, Georgia.

The structures of the male terminalia are refigured for the purpose of more accurately illustrating the position of the curved spines on the ventral surface of the basal lobe of the basistyle. Dyar (1928, Plate XXXVIII, No. 125) and Matheson (1944, Plate XVII, No. 6) figure the spines as arising in the same dorsal plane with the lobes of the ninth tergite. Dyar (1928, p. 171) is of the opinion that the basal lobe is obsolete, "but a large, strong spine remains, inwardly of which are two short curved spines connected by chitin." Matheson (1944, p. 178) describes the basal lobe as "small, with a prominent spine and 2 or 3 adjacent small ones and a few setae; the inner margin of the basal lobe turns ventrad, then outward and caudad, to end in a short, chitinous, stout stem which bears 2 apical, large, curving spines."

In a mounted specimen flattened by the weight of the cover glass and insufficient mounting medium, the folded basal lobe appears to be as previously figured. In a wet mount with the structures in normal position, the basal lobe appears to be small, rounded, with a single prominent spine and 3 or 4 smaller ones on the dorsal surface, a few setae scattered over the area curving ventrad. From the ventral apex arise two spines, somewhat shorter than the dorsal spine, curving dorsally from beneath the stem of the claspette. There does not appear to be a "short, chitinous, stout stem" from the ventral surface of the basal lobe.

An additional correction may be mentioned in the number of spines found on the lobes of the ninth tergite. Matheson (1944, p. 178) lists "7-9 stout spines" and figures only 3 (Plate XVII, No. 6). Dyar mentions and figures 5-6 spines in his description. Specimens involved in the current study have demonstrated from 3 to 6 spines on the lobes of the ninth tergite.

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PERSONAL NOTE: JAMES W. CHAPMAN

Dr. James W. Chapman, Chairman of Science Faculty, Emeritus, Silliman University, Dumaguete, Oriental Negros, Philippine Islands, and well known specialist on Philippine ants, has recently retired to the U. S. He is currently studying at the California Academy of Sciences. In September Dr. Chapman will move to Pasadena for the winter and plans then to take up residence near the Museum of Comparative Zoölogy at Harvard.

After 35 years of Philippine field work and teaching he expects to prepare for publication his comprehensive studies on the taxonomy and ecology of Philippine ants. Dr. Chapman was a member of Dr. William Morton Wheeler's first entomology class at Harvard and later supplied Wheeler with much of his study material from the Philippines.—E. S. Ross.